

PATENT CLAIMS

1. A fastening tape for a hygiene item, in particular for a baby diaper or an incontinence diaper, having a fastening area for permanent attachment to the hygiene item and having a closing area for simultaneous detachable joining to a surface of the hygiene item, whereby the closing area has two areas which carry components of different fastening systems, characterized in that the one area has a shear-off securing means and the other area has a pop-off securing means.
2. The fastening tape according to Claim 1, characterized in that the shear-off securing means is part of a mechanical fastening system.
3. The fastening tape according to Claim 2, characterized in that the shear-off securing means is the male part of a mechanical fastening system.
4. The fastening tape according to any one of Claims 1 through 3, characterized in that the pop-off securing means is part of an adhesive fastening system.
5. The fastening tape according to Claim 4, characterized in that the pop-off securing means comprises an adhesive surface.
6. The fastening tape according to any one of Claims 1 through 5, characterized in that

the area of the remaining closing area between the shear-off securing means and the free end is larger than the area of the shear-off securing means.

7. The fastening tape according to any one of Claims 1 through 6,  
characterized in that  
the closing area has the shear-off securing means at least in part from the fastening area outward.
8. The fastening tape according to any one of Claims 1 through 7,  
characterized by  
a separable target tape that is arranged on the closing area and partially covers it, whereby it leaves at least part of the shear-off securing means open.
9. The fastening tape according to Claim 8,  
characterized by  
a second adhesive layer on the back side of the target tape.
10. The fastening tape according to Claim 8 or 9,  
characterized in that  
the target tape completely covers the closing area up to the shear-off closing means.
11. The fastening tape according to any one of Claims 8 through 10,  
characterized in that  
the target tape protrudes beyond a user's end of the fastening tape.
12. The fastening tape according to any one of Claims 8 through 12,  
characterized by

a release tape on the back side of the target tape.

13. The fastening tape according to Claim 12,  
characterized in that  
the release tape has a third adhesive layer on its  
back side, said adhesive layer forming a tighter bond  
with the surface of a nonwoven than the adhesive bond  
between the release tape and the target tape.
14. The fastening tape according to any one of Claims 1  
through 13,  
characterized by  
a release tape that covers the pop-off securing means.
15. The fastening tape according to any one of Claims 1  
through 4,  
characterized by  
a change in the adhesive in the longitudinal path of  
the adhesive layer.
16. The fastening tape according to any one of Claims 1  
through 15,  
characterized in that  
an adhesive is pressure-sensitive at least in the  
closing area of the diaper-fastening tape.
17. The fastening tape according to any one of Claims 1  
through 16,  
characterized in that  
the mechanical shear-off securing means forms a  
cohesive area.
18. The fastening tape according to any one of Claims 1  
through 17,  
characterized in that  
the entire open adhesive layer forms a cohesive area  
in the closing area.

19. The fastening tape according to any one of Claims 1 through 18,  
characterized by  
multiple changes between the coated area, the uncoated area and the hook area in the closing area.
20. The diaper-fastening tape for a mechanical fastening system comprising two components, whereby a fastening carrier having a fastening area and a carrier area has one component of the mechanical fastening system in its carrier area and this component is arranged on an intermediate carrier which is in turn attached to the fastening carrier,  
characterized by  
an edge carrier which is designed as edge spots (114, 116, 117, 118), carries a component (122) of the mechanical fastening system and is in turn fastened to the fastening carrier (106) within the carrier area (112), whereby at the same time it forms a border of the carrier area (112) along an edge section (125, 128, 130, 131, 132; 125A).
21. The diaper-fastening tape for a mechanical fastening system comprising two components, whereby a fastening carrier having a fastening area and a carrier area carries a component of the mechanical fastening system in its carrier area and this component is arranged on an intermediate carrier which is in turn attached to the fastening carrier,  
characterized by  
an edge carrier that is designed as an edge spot, carrying a regularly arranged component of the mechanical fastening system and being arranged in turn inside the carrier area on the fastening carrier, whereby at the same time it is designed along an edge

section in deviation from the regularity of the arrangement of the components.

22. The diaper-fastening tape according to Claim 20 or 21, characterized in that the edge section of the edge spot has a linear course.
23. The diaper-fastening strip according to any one of Claims 20 through 22, characterized in that the edge section of the edge spot is above a tape edge.
24. The diaper-fastening tape according to any one of Claims 20 through 23, characterized in that the edge carrier and the intermediate carrier form a spot as one structural unit.
25. The diaper-fastening tape according to any one of Claims 20 through 23, characterized in that the edge carrier and the intermediate carrier each form separate spots.
26. The diaper-fastening tape according to any one of Claims 20 through 25, characterized in that the carrier area has at least as many edge spots as central spots.
27. The diaper-fastening tape according to any one of Claims 20 through 26, characterized in that a spot constitutes less than one-third of a carrier area width perpendicular to the longitudinal direction of extent but more than one-fifth of the length of the

carrier area parallel to the longitudinal direction of the extent of the diaper-fastening tape.

28. The diaper-fastening tape according to any one of Claims 20 through 27,  
characterized in that  
the spots are geometrically similar or coincide.
29. The diaper-fastening tape according to any one of Claims 20 through 28,  
characterized by  
an open adhesive layer between the spots.
30. The diaper-fastening tape according to Claim 29,  
characterized in that  
the open adhesive layer is limited to the carrier area.
31. The diaper-fastening tape according to any one of Claims 20 through 30,  
characterized in that  
the spots have their own main direction of extent, preferably across or normal to the longitudinal direction of extent of the diaper-fastening tape.
32. The diaper-fastening tape for a mechanical fastening system comprising two components, whereby one fastening carrier having a fastening area and a carrier area has a component of the mechanical fastening system in its carrier area and this component is arranged on an intermediate carrier which is in turn attached to the fastening carrier,  
characterized by  
a bending line running through the carrier area.
33. The diaper-fastening tape according to Claim 32,  
characterized in that

the bending line runs obliquely or normally to the longitudinal direction of extent.

34. The diaper-fastening tape according to Claim 32 or 33, characterized in that the bending line is exactly straight.
35. The diaper-fastening tape according to any one of Claims 32 through 33, characterized in that exclusively bending lines run in one direction or at least essentially in one direction through the carrier area.
36. The diaper-fastening tape according to any one of Claims 20 through 31, characterized in that the carrier area is free of bending lines and thus has bending stability.
37. The diaper-fastening tape according to any one of Claims 20 through 36, characterized in that a partial area with an oblique spot edge extends over an entire width of the diaper-fastening tape perpendicular to the longitudinal direction of extent.
38. The diaper-fastening tape according to any one of Claims 20 through 37, characterized in that a projection of the spots onto a projection line which is in the plane of the diaper-fastening tape and perpendicular to the longitudinal direction of extent and/or parallel to the longitudinal direction of extent yields overlapping projections of spots which are essentially perpendicular to the projection lines with a distance as well as spots which are essentially

parallel to the projection axis with a distance from one another.

39. The diaper-fastening tape according to any one of Claims 20 through 38, characterized in that the intermediate carrier is divided so that the carrier area is free of straight bending lines and therefore has bending stability.
40. The diaper-fastening tape for a mechanical fastening system comprising two components, whereby a fastening carrier having a fastening area and a carrier area carries a component of the mechanical fastening system in its carrier area and this component is arranged on an intermediate carrier which is in turn attached to the fastening carrier, characterized in that the intermediate carrier is designed as spots having a varying edge in the machine direction, whereby as seen in the direction of the longitudinal extent, at least one spot is provided at each level running in the machine direction over the effective width of the carrier area.
41. The diaper-fastening tape according to Claim 40, characterized by an adhesive surface on the user end of the diaper-fastening tape, said adhesive surface lying outside the carrier area.
42. The diaper-fastening tape according to Claim 40 or 41, characterized in that the varying edge of the spot extends over the entire height of the diaper-fastening tape running in the machine direction, extending perpendicular to the direction of its longitudinal extent.



43. The diaper-fastening tape according to any one of Claims 40 through 42,  
characterized by  
an edge section of a spot running linearly on a circumference of the carrier area.
44. The diaper-fastening tape for a mechanical fastening system comprising two components, whereby a fastening carrier having a fastening area and a carrier area carries a component of the mechanical fastening system in its carrier area and this component is arranged on an intermediate carrier which is in turn attached to the fastening carrier,  
characterized in that  
the intermediate carrier is formed as a strip-shaped spot in its first direction and by an edge variation in a second direction.
45. The diaper-fastening tape according to Claim 44,  
characterized in that  
the edge variation necessitates weakened spots spaced a distance apart.
46. The diaper-fastening tape according to Claim 44 or 45,  
characterized in that  
the weakened spot is caused by a constriction of the strip-shaped spot or by a tapering of the material.
47. The diaper-fastening tape according to any one of Claims 44 through 46,  
characterized by  
an edge section running in a straight line on the strip-shaped spot, preferably on a circumference of the carrier area.

48. The diaper-fastening tape according to any one of Claims 44 through 47,  
characterized by  
several strip-shaped spots that coincide.
49. The diaper-fastening tape according to any one of Claims 44 through 48,  
characterized by  
an open adhesive layer between the spots.
50. The diaper-fastening tape according to any one of Claims 44 through 49,  
characterized in that  
an edge of the strip-shaped spot runs obliquely with respect to a longitudinal extent direction of the diaper-fastening tape in at least one partial area.
51. The diaper-fastening tape according to Claim 50,  
characterized in that  
the partial area with the oblique edge of the spot extends over the entire width of the diaper-fastening tape perpendicular to the longitudinal extent.
52. The diaper-fastening tape according to any one of Claims 20 through 51,  
characterized in that  
the components of the fastening system that is carried in the carrier area are the hooks of a hook-and-loop fastening system.
53. The tape material having a longitudinal direction of extent which can be divided, preferably without waste, by cutting across the direction of longitudinal extent and optionally also essentially in the direction of longitudinal extent to form individual usages in the form of fastening tapes according to any one of Claims 1 through 52.

54. The winding, in particular the roll or reel of a tape material according to Claim 53.
55. The diaper having a fastening tape according to any one of Claims 1 through 52.
56. The diaper according to Claim 55 having a textile back sheet,  
characterized in that  
the diaper-fastening tape is detachably connectable to a landing zone on the textile back sheet via the closing area.
57. The diaper according to Claim 56,  
characterized in that  
the back sheet has a nonwoven material and/or is formed therefrom on its outside.
58. The diaper according to Claim 56 or 57,  
characterized in that  
the landing zone is larger in its area measurements than the extent of the closing area.
59. The diaper according to any one of Claims 55 through 58,  
characterized in that  
the adhesive of the free adhesive layer is selected in the closing area such that the adhesive adheres to a back sheet of the diaper with a separation force of more than  $0.05 \text{ N/cm}^2$ , preferably more than  $0.1 \text{ N/cm}^2$ , especially preferably more than  $0.15 \text{ N/cm}^2$ .
60. The diaper according to any one of Claims 55 through 59,  
characterized in that

the adhesive of the free adhesive layer in the closing area is selected so that the adhesive layer adheres to a back sheet of the diaper with a total separation force of more than 0.05 N, preferably more than 0.1 N, especially preferably more than 0.15 N.

61. The method for closing a diaper for applying and/or disposing of the diaper whereby for closing the diaper, a connection is established between a closing area of a diaper-fastening tape on a diaper wing and a landing zone, preferably on a front section, characterized in that a surface area of a textile back sheet is selected as the landing zone.
62. The method according to Claim 61, characterized in that the diaper is furnished with a diaper-fastening tape according to any one of Claims 1 through 52.
63. The method according to Claim 61 or 62, characterized by a diaper according to any one of Claims 55 through 60.
64. The method for producing a diaper-fastening tape according to any one of Claims 1 through 52, characterized in that at first spots are applied via a plurality of diaper-fastening tapes that are adjacent in the machine direction and then the tapes are separated to yield their final shape.
65. The manufacturing method according to Claim 64, characterized in that when separating the individual fastening tapes, edge spots extending over a bordering edge are severed.

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